


IN 1651

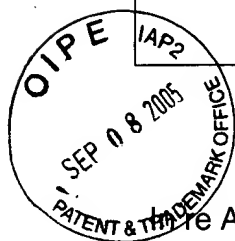
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Sarah M. Barnett

**Sarah M. Barnett**



**Trade Application of:**

[illegible]

Group Art Unit: 1651

(

Examiner: SAUCIER, Sandra E.

3

Confirmation No.: 8411

1

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

**REQUEST FOR RECONSIDERATION OF DISMISSAL OF  
APPLICATION FOR PATENT TERM ADJUSTMENT–PRE-GRANT  
AND  
FURTHER APPLICATION FOR PATENT TERM ADJUSTMENT–PRE-GRANT**

In response to a first Notice of Allowance mailed August 30, 2004, Applicants submitted an Application for Patent Term Adjustment - Pre-Grant on November 12, 2004. The Office dismissed that request on April 11, 2005, and Applicants respectfully request reconsideration of that dismissal. In addition, in response to the second Notice of Allowance mailed June 8, 2005, Applicants respectfully submit a further Application for Patent Term Adjustment. This further request is being timely made with the payment

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of the issue fee and together with the payment of the fee required by 37 C.F.R.

§ 1.705(b).

As explained in detail below, both the previously- and presently-filed applications seek reconsideration of reductions in patent term given as a consequence of two separate instances in which Applicants sought to comply with their duty of disclosure under 37 C.F.R. § 1.56. More importantly, in both instances, Applicants complied with the duty of disclosure while also engaging in reasonable efforts to conclude prosecution as permitted under 37 C.F.R. § 1.704.

In the first instance, Applicants submitted an IDS providing references that had been first cited in a communication from a foreign patent office within thirty (30) days of receipt as permitted by Section 1.704(d). And while Applicants did not expressly recite that the filing was within thirty days, that time period was immediately evident on the face of the submission. In the second instance, which occurred after payment of the Issue Fee, Applicants submitted an IDS, along with a Petition for Withdrawal from Issue, and a Request for Continued Prosecution, to again bring to the attention of the Office a communication from a foreign patent office as well as the references relied upon in the rejection to the attention of the Office. While this latter submission did not occur within the 30 days of receipt under Section 1.704(d), it is not within the proscribed “circumstances that constitute a failure of applicant to engage in reasonable efforts to conclude prosecution” under Section 1.704(c).

Accordingly, as set forth in detail below, neither of these actions warranted the reductions given by the Office, specifically a reduction of 88 days resulting from the first instance, the filing of the Information Disclosure Statement, and a reduction of 133 days

resulting from the second instance, the filing of the Petition for Withdrawal from Issue, Request for Continued Examination, and Information Disclosure Statement. Instead of these reductions, Applicants believe that the patent term adjustment should not be zero (0) days, but ninety-three (93) days total. Thus, Applicants respectfully request reconsideration of both determinations and the issuance of a new patent term adjustment.

**I. Statement of the Facts Involved**

**A. Relevant Dates**

The above-identified application was filed June 1, 2001.

A Restriction Requirement was mailed on February 5, 2003, resulting in a PTO delay of 188 days beyond the 14 months provided by 35 U.S.C. § 154(b).

A non-final Office Action was mailed on May 1, 2003.

Applicants filed a response on September 5, 2003, resulting in Applicants' delay of 35 days.

Applicants filed an Information Disclosure Statement, citing the document reported in the European Search Report on December 2, 2003, less than thirty days after individuals designated in §1.56(c) received the European Search Report. The Office alleges that this constitutes a failure to engage in reasonable efforts of 88 days.

A final Office Action was mailed December 22, 2003.

Applicants then filed a Notice of Appeal on May 21, 2004, resulting in Applicants' delay of 60 days.

A first Notice of Allowance was mailed on August 30, 2004.

A first Application for Patent Term Adjustment - Pre-Grant was filed on November 12, 2004.

The Issue Fee was due on November 30, 2004, and Applicants paid it on November 15, 2004.

A Petition for Withdrawal from Issue, a Request for Continued Examination, and an Information Disclosure Statement were filed on April 12, 2005. The PTO alleges that this caused an Applicants' delay of 133 days. Applicants believe that this corresponds to the time between the date the issue fee was due (November 30, 2004) and the date the Petition for Withdrawal from Issue, Request for Continued Examination, and Information Disclosure Statement were filed (April 12, 2005).

A second Notice of Allowance was mailed on June 8, 2005.

To graphically view these relevant dates and delays on the part of both the Office and Applicants, Applicants provide the following chart:

Action	PTO delay	Applicants' delay	Applicants' alleged delay	PTO's calculation of PTA	Applicants' calculation of PTA
Application filed June 1, 2001					
Restriction Requirement mailed February 5, 2003	188 days			188 days	188 days
Non-final Office Action filed May 1, 2003					
Response to Office action mailed September 5, 2003		33 days		154 days	154 days
IDS filed December 2, 2003			88 days	66 days	154 days
Final Office Action mailed December 22, 2003					

Notice of Appeal filed May 21, 2004		60 days		5 days	93 days
First Notice of Allowance mailed August 30, 2004					
First Application for Patent Term Adjustment - Pre-Grant filed November 12, 2004.					
Issue Fee due November 30, 2004					
Petition for Withdrawal from Issue, Request for Continued Examination, and IDS filed April 12, 2005			133 days	0 days	93 days
Second Notice of Allowance mailed June 8, 2005					

#### **B. Correct Patent Term Adjustment for the First Instance**

As noted above, the Office dismissed Applicants' first request for patent term adjustment, correctly noting that that the Information Disclosure Statement filed December 2, 2003, did not include an affirmative statement that the communication from the European Patent Office was not received by any individual designated in 37 C.F.R. § 1.56(c) more than thirty days prior to the filing of the Information Disclosure Statement. However, because the communication from the European Patent Office was dated November 6, 2003 (Exhibit A), and the Information Disclosure statement was filed December 2, 2003 (Exhibit B), it was immediately evident on the face of the communication that the European Patent Office could not have been and was not

received by any individual designated in 37 C.F.R. § 1.56(c) more than thirty days prior to the filing of the Information Disclosure Statement.

Moreover, in this Request for Reconsideration, Applicants expressly state for the record that each item of information contained in the Information Disclosure Statement filed December 2, 2003, was first cited in a communication from a foreign patent office in a counterpart application and that this communication was not received by any individual designated in § 1.56(c) more than thirty days prior to the filing of the Information Disclosure Statement.

Accordingly, Applicants have both complied with their duty of disclosure and engaged in reasonable efforts to conclude prosecution and respectfully request reconsideration of the 88 day reduction.

The removal of the 88 day reduction impacts the ultimate patent term adjustment for this application. Up to the time the first issue fee was due on November 30, 2004, the total PTO adjustment based on PTO delays was 188 days while the reduction in term adjustment based on Applicants' delays would have been 95 days. This results in a patent term adjustment of 93 days total. Applicants respectfully request that the dismissal of the Application for Patent Term Adjustment - Pre-Grant be reconsidered and that the patent term adjustment be changed to 93 days.

### **C. Correct Patent Term Adjustment for the Second Instance**

With the second Notice of Allowance mailed on June 8, 2005, Applicants received a Determination of Patent Term Adjustment, advising that this application was entitled to zero (0) days of patent term adjustment. The further reduction in patent term adjustment between the first Notice of Allowance and the second Notice of Allowance

appears to be due to an alleged Applicants' delay of 133 days due to the filing of the RCE, Petition to Withdraw from Issue under Section 1.313, and the IDS after payment of the first issue fee. A copy of the IDS is provided as Exhibit C.

As noted above, to comply with the duty of disclosure, Applicants submitted these papers to provide to the Office a Notice of Rejection from the Japanese Patent Office in a corresponding application as well as three references that had previously been unknown to the Applicants. A copy of the Notice of Rejection is provided as Exhibit D. The rejection was dated March 8, 2005, and Applicants submitted the papers on April 12, 2005. While Applicants recognize that this submission does not fall within the 30 day period set forth in Section 1.704(d), this submission correspondingly does not fall within any of the enumerated actions of Section 1.704(c).

Specifically, none of the provisions of Section 1.704(c) cover the submission of a Petition to Withdraw from Issue made under Section 1.313. The closest provision, Section 1.704(c)(2), does cover "deferral of issuance of a patent," but that is explicitly listed as an action under Section 1.314. Thus, the rules recognize a distinction between Section 1.313 and Section 1.314. Indeed, this distinction makes sense in light of the Office's attempt to identify actions that "constitute a failure ... to engage in reasonable efforts to conclude processing or examination of an application." A deferral of issuance under Section 1.314 permits an applicant to simply delay the issuance of a patent and thereby expressly delays the processing of an application. A withdrawal from issue under Section 1.313, on the other hand, requires an applicant to actively relinquish the opportunity to receive a patent. Perhaps the Office recognized that this action did not simply delay processing or examination, because examination was closed. Or perhaps

the Office considered that the penalty from seeking a withdrawal from issue under Section 1.313 was sufficiently harsh not to impose an further impact on patent term. In any event, none of the recited provisions of Section 1.704(c) expressly cover this submission.

Finally, should the Office consider the submission of the Petition for Withdrawal from Issue, Request for Continued Examination, and Information Disclosure Statement to fall within Section 1.704(10) as the "submission of a ... paper after notice of allowance," which will not be "excused" under the 30 day provision of Section 1.704(d), the reduction given by the Office in this instance is too great. Section 1.704(d)(10) expressly provides that the reduction shall be **"the lesser of"**:

the number of days, if any, beginning on the date the [paper submitted after notice of allowance] was filed and ending on the mailing date of the Office action or notice in response to [such paper]; or

four months.

Here, the papers were submitted on April 12, 2005, and the second Notice of Allowance was issued on June 8, 2005. This corresponds to 57 days. Moreover, the quick issuance of a Notice of Allowance demonstrates on its face that the submission of the papers did not impede the conclusion of examination. This submission is simply not a circumstance that constitutes a failure to engage in reasonable efforts to conclude either processing or examination.

Thus, between the time the first issue fee was due on November 30, 2004, and the time the second Notice of Allowance was mailed, the reduction in term adjustment should be 0 days or, at most, 57 days. Thus, the total patent term adjustment should be 93 days. If the Office applies Section 1.704(c)(10), the adjustment should be 35 days.



Applicants respectfully request that the dismissal of the Application for Patent Term Adjustment - Pre-Grant be reconsidered, that the current Application for Patent Term Adjustment - Pre-Grant be approved, and that the patent term adjustment be changed to 93 days.

**C. Terminal Disclaimer**

The above-identified application is not subject to a Terminal Disclaimer.

**D. Reasonable Efforts**

Rule 1.705(b) requires a statement of Applicants' reasonable efforts. To facilitate review of this paper, Applicants will not repeat the description of its reasonable efforts here but merely note the discussion above.

**II. Fee**

If there are any additional fees due in connection with the filing of this Request for Reconsideration, please charge them to our Deposit Account No. 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,  
GARRETT & DUNNER, L.L.P.

Dated: September 8, 2005

By: \_\_\_\_\_

  
Stephanie M. Liva

Reg. No. 54,278

Customer No. 22,852

Attachment: Exhibits A, B, C, and D



PATENT

Customer No. 22,852

Attorney Docket No. 04853.0073

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: )  
 )  
 Hisashi SEMBA et al. ) Group Art Unit: 1651  
 )  
 Application No.: 09/870,821 ) Examiner: S. Saucier  
 )  
 Filed: June 1, 2001 )  
 )  
 For: AN ENZYME REACTION METHOD )  
 AND A METHOD FOR )  
 ENZYMATICALLY PRODUCING )  
 AN OPTICALLY ACTIVE )  
 CYANOHYDRIN )

Commissioner for Patents  
 P.O. Box 1450  
 Alexandria, VA 22313-1450

Sir:

**INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. § 1.97(c)**

Pursuant to 37 C.F.R. §§ 1.56 and 1.97(c), Applicants bring to the attention of the Examiner the document listed on the attached PTO 1449. This Information Disclosure Statement is being filed after the events recited in Section 1.97(b) but, to the undersigned's knowledge, before the mailing date of either a Final action, Quayle action, or a Notice of Allowance. Under the provisions of 37 C.F.R. § 1.97(c), this Information Disclosure Statement is accompanied by a fee of \$180.00 as specified by Section 1.17(p). Please charge \$180.00 to Deposit Account No. 06-0916.

The document listed in this Information Disclosure Statement was first cited in a communication from the European Patent Office in a counterpart foreign application, and this Information Disclosure Statement is being filed within three months of the mailing date of that

communication. A copy of the communication from the European Patent Office dated November 6, 2003 is enclosed.

The EPO communication lists four references but three of the four references were previously submitted in an Information Disclosure Statement filed December 28, 2001. Thus, only the remaining reference is attached.

Applicants respectfully request that the Examiner consider the listed document and indicate that it was considered by making appropriate notations on the attached form.

This submission does not represent that a search has been made or that no better art exists and does not constitute an admission that the listed document is material or constitutes "prior art." If the Examiner applies the document as prior art against any claims in the application and Applicants determine that the cited document does not constitute "prior art" under United States law, Applicants reserve the right to present to the Office the relevant facts and law regarding the appropriate status of the document.

Applicants further reserve the right to take appropriate action to establish the patentability of the disclosed invention over the listed document, should the document be applied against the claims of the present application.

If there is any additional fee due in connection with the filing of this Statement, please charge the fee to our Deposit Account No. 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,  
GARRETT & DUNNER, L.L.P.

Dated: December 1, 2003

By: 

William R. Lambert  
Reg. No. 44,857

## INFORMATION DISCLOSURE CITATION

Atty. Docket No.	4853-0073-00000	Appln. No.	09/870,821
Applicant	Hisashi SEMBA et al.		
Filing Date	June 1, 2001	Group:	1651

## U.S. PATENT DOCUMENTS

Examiner Initial*	Document Number	Issue Date	Name	Class	Sub Class	Filing Date If Appropriate

## FOREIGN PATENT DOCUMENTS

Document Number	Publication Date	Country	Class	Sub Class	Translation Yes or No
EP 0 547 655 A	06/23/1993	EPO	C12P	13/00	

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)


Examiner	Date Considered
*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	
Form PTO 1449	Patent and Trademark Office - U.S. Department of Commerce



PATENT  
Customer No. 22,852  
Attorney Docket No. 04853.0073-00000

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	)	
	)	
Hisashi SEMBA et al.	)	Group Art Unit: 1651
	)	
Application No.: 09/870,821	)	Examiner: SAUCIER, Sandra E.
	)	
Filed: June 1, 2001	)	
	)	
For: ENZYME REACTION METHOD	)	Confirmation No.: 8411
AND A METHOD FOR	)	
ENZYMATICALLY PRODUCING	)	
AN OPTICALLY ACTIVE	)	
CYANOHYDRIN	)	

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

**INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. § 1.97(b)**

Pursuant to 37 C.F.R. §§ 1.56 and 1.97(b), Applicants bring to the attention of the Examiner the documents on the attached listing. This Information Disclosure Statement is being filed concurrently with the filing of a Request for Continued Examination in the above-referenced application.

Copies of the listed foreign and non-patent literature documents are attached. English translations of the abstracts of the non-English documents are enclosed.

Applicants respectfully request that the Examiner consider the listed documents and indicate that they were considered by making appropriate notations on the attached form.

This submission does not represent that a search has been made or that no better art exists and does not constitute an admission that each or all of the listed documents are material or constitute "prior art." If the Examiner applies any of the documents as prior art against any claim in the application and Applicants determine that the cited documents do not constitute "prior art" under United States law, Applicants reserve the right to present to the Office the relevant facts and law regarding the appropriate status of such documents.

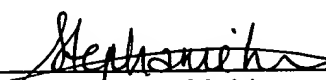
Applicants further reserve the right to take appropriate action to establish the patentability of the disclosed invention over the listed documents, should one or more of the documents be applied against the claims of the present application.

If there is any fee due in connection with the filing of this Statement, please charge the fee to our Deposit Account No. 06-0916.

Respectfully submitted,

FINNEGAN, HENDERSON, FARABOW,  
GARRETT & DUNNER, L.L.P.

Dated: April 12, 2005

By:   
Stephanie M. Liva  
Reg. No. 54,278

Complete if Known

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet

1

of

1

Application Number 09/870,821  
 Filing Date June 1, 2001  
 First Named Inventor Hisashi SEMBA  
 Art Unit 1651  
 Examiner Name Sandra E. SAUCIER  
 Attorney Docket Number 04853.0073-00000

**U.S. PATENTS AND PUBLISHED U.S. PATENT APPLICATIONS**

Examiner Initials	Cite No. <sup>1</sup>	Document Number	Issue or Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
		US-			
		US-			
		US-			

Note: Submission of copies of U.S. Patents and published U.S. Patent Applications is not required.

**FOREIGN PATENT DOCUMENTS**

Examiner Initials	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	Translation <sup>6</sup>
		Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)				
		JP 03-287559	12-18-1991	TEIJIN LTD		Yes- Abstract only
		JP 04-342588	11-30-1992	MERRELL DOW PHARMACEUT INC		Yes- Abstract only

**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	Translation <sup>6</sup>
		DOVE, S. ET AL., "7-Substituted-4-hydroxyquinoline-3-carboxylic Acids as Inhibitors of Dehydrogenase Enzymes and of the Respiration of Ehrlich Ascites Tumor Cells: Multivariate Analysis and Quantitative Structure-Activity Relationship for Polar Substituents, <i>J. Med. Chem.</i> , 1985, vol. 28, pp. 447-451, American Chemical Society.	
		Notice of Rejection dated March 8, 2005 in Japanese Application No. 2000-206130.	

Examiner Signature		Date Considered	
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EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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FAX (070) 340 3016

Europäisches  
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Zweigstelle in  
Den Haag  
Recherchen-  
abteilung

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Division

Office européen  
des brevets  
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La Haye  
Division de la  
recherche

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GRANDE BRETAGNE

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REC'D	10 NOV 2003
(LONDON)	
ANSO	
ENTRY	
FOR	<del>DE</del> CYK

Datum/Date

06. 11. 03

Zeichen/Ref./Réf.

P011623EP CYK

Anmeldung Nr./Application No./Demande n°//Patent Nr./Patent No./Brevet n°

01304858.2-2405/

Anmelder/Applicant/Demandeur//Patentinhaber/Proprietor/Titulaire  
Nippon Shokubai Co., Ltd.

## COMMUNICATION

The European Patent Office herewith transmits the partial European search report under Rule 46(1) EPC relating to the above-mentioned European patent application.

Copies of the documents cited in the search report are enclosed.

The applicant's attention is drawn to the following:

The search Division informs the applicant that if the European search report is also to cover inventions other than the invention first mentioned in the claims, a further search fee must be paid for each of these inventions, within ONE MONTH after notification of this communication.

If the application has been filed up to 30 June 1999, the search fee in force before 01 July 1999 (EUR 869,--) or the equivalent applicable on the date of payment is payable.

This applies also to the search fees requested under Rule 46(1) EPC.

See also OJ EPO 06/1999, 405.

☐ The abstract was modified by the Search Division and the definitive text is attached to the present communication.

☒ Additional set(s) of copies of the documents cited in the European search report is (are) enclosed as well.



## Note to users of the automatic debiting procedure:

Unless the EPO receives prior instructions to the contrary, the search fee(s) will be debited on the last day of the period for payment. For further details see the Arrangements for the automatic debiting procedure, Supplement to OJ EPO 02/1999.



European Patent  
Office

## PARTIAL EUROPEAN SEARCH REPORT

under Rule 46, paragraph 1 of the European Patent Convention EP 01 30 4858

Application Number

### DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X (1)	US 4 859 784 A (EFFENBERGER FRANZ ET AL) 22 August 1989 (1989-08-22) * the whole document *	1-4,14	C12P1/00 C12P13/00 C12N9/88
X,D (2)	EP 0 547 655 A (DUPHAR INT RES) 23 June 1993 (1993-06-23) * page 2, line 40 - line 52 *	1-4,14	
A (3)	LOOS W T ET AL: "SYNTHESIS OF OPTICALLY ACTIVE CYANOHYDRINS USING R-OXYNITRILASE IN A LIQUID-LIQUID BIPHASIC SYSTEM PART 1: AN INDUSTRIALLY USEFUL PROCEDURE" BIOCATALYSIS AND BIOTRANSFORMATION, HARWOOD ACADEMIC PUBL., BASEL, CH, vol. 12, 1995, pages 255-266, XP001021485 ISSN: 1024-2422 * the whole document *	1-4,14	
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			C12P C12N

### LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

The present partial European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims.

Place of search	Date of completion of the search	Examiner
MUNICH	21 October 2003	Sprinks, M

#### CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone  
Y : particularly relevant if combined with another document of the same category  
A : technological background  
O : non-written disclosure  
P : intermediate document

T : theory or principle underlying the invention  
E : earlier patent document, but published on, or after the filing date  
D : document cited in the application  
L : document cited for other reasons  
& : member of the same patent family, corresponding document

DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
A  (4)	WEHTJE E ET AL: "ACTIVITY AND OPERATIONAL STABILITY OF IMMOBILIZED MANDELONITRILE LYASE IN METHANOL-WATER MIXTURES" APPLIED MICROBIOLOGY AND BIOTECHNOLOGY, SPRINGER VERLAG, BERLIN, DE, vol. 29, no. 5, 1988, pages 419-425, XP000926436 ISSN: 0175-7598 * the whole document *	1-4, 14	
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)



The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. Claims: 1-4 completely; 14 partially

An enzyme reaction system incorporating an immobilised enzyme and an organic solvent which is saturated with water or aqueous buffer in a single liquid phase.

2. Claims: 5-8 completely; 14 partially

An enzyme reaction method using an aldehyde substrate, in which an enzyme inhibitor is removed by treatment with alkali.

3. Claims: 9-12 completely; 14 partially

A method for synthesising an optically active cyanohydrin from a carbonyl compound utilising prussic acid and an acidic stabiliser.

4. Claim : 13 completely; 14 partially

A method for synthesising an optically active cyanohydrin from a carbonyl compound utilising prussic acid and including a distillation step to recover unreacted prussic acid and solvent.

Each subject defined above provides a solution to an essentially different technical problem in a different way, whilst none of the solutions is essential for the other subjects.

Consequently, there is no technical relationship between the features of each of the claimed subjects that defines a single unifying contribution over the prior art. Therefore each of the subjects referred to in the claims constitutes a separate invention.

**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

EP 01 30 4858

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on  
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

21-10-2003

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
US 4859784	A	22-08-1989	DE	3701383 A1	28-07-1988
			AT	75779 T	15-05-1992
			DE	3778864 D1	11-06-1992
			DK	19988 A	21-07-1988
			EP	0276375 A2	03-08-1988
			ES	2032419 T3	16-02-1993
			JP	63219388 A	13-09-1988
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EP 0547655	A	23-06-1993	CA	2084855 A1	12-06-1993
			EP	0547655 A1	23-06-1993
			HU	64105 A2	29-11-1993
			JP	3253150 B2	04-02-2002
			JP	5317065 A	03-12-1993
			US	5350871 A	27-09-1994

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拒絶理由通知書  
(Notice of Rejection)

期限 17.5.-9

(Patent Application No. 2000-206130)

特許出願の番号 特願2000-206130  
起案日 平成17年 2月28日  
特許庁審査官 植原 克典 9840 4B00  
特許出願人代理人 平木 祐輔(外 2名) 様  
適用条文 第29条第2項

この出願は、次の理由によって拒絶をすべきものである。これについて意見があれば、この通知書の発送の日から60日以内に意見書を提出して下さい。

## 理 由

この出願の下記の請求項に係る発明は、その出願前日本国内又は外国において頒布された下記の特許公報に記載された発明又は電気通信回線を通じて公衆に利用可能となった発明に基いて、その出願前にその発明の属する技術の分野における通常の知識を有する者が容易に発明をすることができたものであるから、特許法第29条第2項の規定により特許を受けることができない。

## 記 (引用文献等については引用文献等一覧参照)

- ・請求項1-4について
- ・特許公報1-4

特許公報1には、アルデヒド化合物を基質とし、ヒドロキシニトリルリアーゼを触媒とする酵素反応を行うことで、光学活性シアノヒドリンを合成する方法が記載されている。

特許公報1に記載の発明と本願請求項1に係る発明との相違点は、特許公報1の合成法には、アルカリ処理により基質のアルデヒド化合物中のカルボン酸化合物を除去するという工程が記載されていない点である。

しかし、アルデヒド化合物が空気酸化されることでカルボン酸化合物になることは周知の事実であり、また、カルボン酸が酵素を阻害することも公知であることより(特許公報2-4)、特許公報1の合成法にて、品質が劣化したアルデヒド化合物を基質として用いる場合は、合成の前処理として、アルデヒド化合物から不純物としてのカルボン酸を除去するために、アルデヒド化合物に対してアルカリ処理等を行い、品質が劣化したアルデヒド化合物からカルボン酸を除去するという工程は当業者が当然行うことに過ぎない。

本願請求項2-4についても同様である。

## 引用文獻等一覽 (List of the cited references)

- 刊行物 4 : J. Med. Chem., 28 (4) 447-451 (1985)

## 先行技術文献調査結果の記録

DB名 : CAPLUS (STN)

この先行技術文献調査結果の記録は、拒絶理由を構成するものではない。

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